

I claim:

1. A display processor, comprising:  
an image signal input configured to receive an input image value  
5 associated with a display pixel;  
an interpolator configured to determine at least one correction value  
associated with the display pixel based on horizontal interpolation using predetermined  
correction values; and  
a data combiner configured to combine the input image value with the  
10 correction value to produce a corrected image value.
2. The display processor of claim 1, wherein the data combiner is  
configured to sum the correction value with the input image value to produce the  
corrected image value.  
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3. The display processor of claim 1, wherein the data combiner is  
configured to produce the corrected image data value based on a product of the  
correction value and the input image value.
- 20 4. The display processor of claim 1, wherein the interpolator is  
configured to determine the at least one correction value based on horizontal  
interpolation and vertical interpolation using the predetermined correction values.
5. The display processor of claim 4, wherein the data combiner is  
25 configured to sum the correction value with the input image value to produce the  
corrected image value

6. The display processor of claim 4, wherein the data combiner is configured to produce the corrected image data value based on a product of the correction value and the input image value.

5                   7. The display processor of claim 1, wherein the interpolator is configured to determined at least a first correction value and a second correction value associated with a display pixel based on horizontal interpolation using the predetermined correction values, wherein the first correction value and the second correction value correspond to a gain and an offset, respectively.

10                   8. The display processor of claim 7, wherein the interpolator is configured to determine the first correction value and the second correction value based on horizontal interpolation and vertical interpolation using the predetermined correction values.

15                   9. The display processor of claim 1, further comprising a memory configured to store the predetermined correction values.

20                   10. An image corrector, comprising:  
a memory configured to store predetermined correction values;  
a processor configured to compute correction values associated with a display pixel based upon a horizontal and a vertical location of the pixel in an image.

25                   11. The image corrector of claim 10, wherein the processor is configured to compute at least one correction value based on horizontal interpolation using the predetermined correction values.

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12. The image corrector of claim 10, wherein the processor is configured to compute at least one correction value based on horizontal interpolation and vertical interpolation using the predetermined correction values.

5                   13. The image corrector of claim 12, further comprising a multiplier configured to multiply an input image value by the computed correction value to produce a corrected image value.

10                   14. A display system, comprising:  
                    a memory configured to store predetermined correction values associated with a set of image locations;  
                    a correction system configured to receive input image values and produce corrected image values based on horizontal interpolation with the set of predetermined correction values; and  
15                   at least one display panel configured to receive corrected image values.

20                   15. The display system of claim 14, wherein the predetermined correction values are associated with display zones, and the correction system is configured to interpolate in first subzones and second subzones of the display zones.

16. The display system of claim 14, wherein a horizontal increment is adjusted based on an associated incremental change of horizontal increment per row.

25                   17. The display system of claim 16, wherein the correction values are applied to the input image values as offsets.

18. The display system of claim 16, wherein the correction values are applied to the input image values as gains.

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19. A display interpolator, comprising:  
an input configured to receive a set of predetermined correction values;  
and  
a horizontal increment adder configured to apply a horizontal increment  
5 to at least one of the predetermined correction values to produce an output correction  
value.

20. The display interpolator of claim 19, further comprising an  
increment adjustment adder configured to adjust the horizontal increment based on a  
10 change of horizontal increment per row determined based on the predetermined  
correction values.

21. The display interpolator of claim 19, further comprising a vertical  
increment adder configured to apply a vertical increment to at least one of the  
15 predetermined correction values.

22. The display interpolator of claim 21, further comprising an  
increment adjustment adder configured to adjust a vertical increment based on a change  
of vertical increment per column determined based on the predetermined correction  
20 values.

23. A method for correcting image values, comprising:  
storing predetermined correction values associated with a plurality of  
pixels;  
25 obtaining at least one correction value for a selected pixel by horizontal  
interpolation based on the predetermined correction values; and  
applying the correction value to an image value associated with the  
selected pixel.

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24. The method of claim 23, wherein the at least one correction value is obtained by horizontal interpolation and vertical interpolation based on the predetermined correction values.

5                   25. The method of claim 23, wherein at least two correction values are obtained for the selected pixel, the correction values including a correction gain value and a correction offset value.

10                   26. An image correction method, comprising:  
dividing an image into zones;  
establishing predetermined correction values associated with the zones;  
obtaining a correction value associated with a pixel by horizontal  
interpolation within a zone; and  
applying the correction value to an image value associated with the pixel.

15                   27. The image correction method of claim 26, wherein the correction value associated with a pixel is obtained by horizontal interpolation and vertical interpolation within a zone.

20                   28. A method for correcting image defects in a display, the method comprising the steps of:  
storing predetermined correction values associated with a set of display pixels;  
determining a correction value associated with a pixel by applying  
25 horizontal and vertical correction value increments to at least one of the predetermined correction values;  
receiving an input image value associated with the pixel; and  
applying the correction value to the input image value.

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29. The method of claim 28, wherein the correction value is applied to the input correction value as a gain.

30. The method of claim 28, wherein the correction value is applied to  
5 the input correction value as an offset.

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